

Remarks/Arguments

Applicants thank the Examiner for the attention to this application. The application was examined with 26 claims. Claim 1 has been amended. No new subject matter was added by way of these amendments that are fully supported in the disclosure.

The Present Invention

Before considering the applied art, a brief review of the present application may be useful. The present application describes and claims a system and method that can be advantageously used to allow designers to include user interface features in a web application. The system and method allows for the user interface features to be defined by the designer without requiring the designer to write any JavaScript code. The designer can specify the appearance of the control element, for example by specifying skin templates of the control element.

Providing a system and method that allows interface elements to be described in an extensible mark-up language has various advantages. Some of the advantages may include the ease of including the controls elements since the designer is not required to write code for the control element. Furthermore, describing the control elements in an extensible mark-up language allows the control elements to be more easily transformed (for example using XSLT), which can provide for easier automation of the design process.

The description of a control element separates the appearance of a control from the functionality of the control. The description of an instance of a control element has a namespace for associating the instance with the required functionality. The required functionality can be provided to the browser either in native code, that is the browser has the required functionality provided natively (or via plug-ins). The required functionality could alternatively be provided to the browser via scripting, for example JavaScript. However the

required functionality is separated from the description of the control element. The two are linked via the namespace attribute of the control element.

Additionally the description of the control element allows for the display of the control element to be separated from the functionality. As such the control appearance can be specified separately, such as in a skin template. The skin template may describe the appearance of the control element in an SVG file, which describes how to display the control element.

The Dreamweaver Reference

Dreamweaver is an application that can be used to design web sites and web applications. Dreamweaver provides an editor for creating the websites. The HTML generated by Dreamweaver may include JavaScript. Dreamweaver is provided with basic functionality for creating and generating the web pages.

Dreamweaver has an application programming interface (API) that defines various methods that are exposed by the Dreamweaver application. The methods of the API may be used by a developer to create extensions to the Dreamweaver application. The extensions that can be created using the API allow for new functionality to be added to the Dreamweaver editor.

For example, a developer may wish to design a Dreamweaver extension that provides the Dreamweaver editor with the added functionality of inserting random text into a web page layout to allow a designer to view the page layout with text, without requiring large amounts of text be entered. The extension developer may create the desired functionality by creating an HTML document, including JavaScript code using the Dreamweaver API. The cited reference describes how the API may be used by a developer in order to create new extensions.

Differences between Dreamweaver Reference and the Present Claimed Invention

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The system and methods described and claimed in the present application allow a control element to be specified in an extensible mark-up language through associating the required functionality with the element using an attribute of the control element (namespace). While it would be desirable for a designer to use such functionality when creating a web application, Dreamweaver does not provide any such functionality.

Furthermore, one skilled in the art having regard to the cited references would be able to better understand the API of Dreamweaver, as well as how to use that API in order to create extensions for Dreamweaver. However, they would not be led to the desirability of the functionality described and claimed by the present application, nor would they be led to the solution taught by the present application for providing this functionality.

Response to Arguments

Applicants have reviewed the response to Applicants' previously submitted arguments, and respectfully request reconsideration in view of the remarks set out above. Applicants respectfully request that the Examiner generally reconsider what the Dreamweaver reference actually teaches. In particular, Applicants note the following:

- Dreamweaver is an "application" for building web sites/ applications, and not a "web application" for building web applications as alleged in the Office Action.
- The API of Dreamweaver is not customizable as alleged in the Office Action, but rather Dreamweaver itself may be customized by using the Dreamweaver API.
- Applicants previously argued that the cited reference teaches that the Dreamweaver extensions are created using HTML files and HTML forms, and not that the Dreamweaver extensions are only for the use of making HTML as alleged in the Office Action.

- It is alleged in the Office Action that CSS styles can define the visual appearance of control elements, since the controls are written in JavaScript which are in HTML and the like. Applicants note that while an HTML document may include JavaScript to define controls, the CSS styles determine the format appearance of the HTML elements, and do not apply to the JavaScript. For example, CSS styles may be used to define the font size and font colour to be used when displaying a <heading> tag of the HTML document.
- Automatically assigning a generic name as taught by Cain is not the same as dynamically generating a function name. Cain teaches assigning a generic name to a button such as 'button1' which then may be changed by the user to a more meaningful name. By contrast, dynamically generating a function name generates a function name for a specific control, the generated function name may be based on, for example, control attributes.

Claim Amendment

For the sake of expediting the prosecution of the current application, Applicants have amended independent claim 1 for extra clarity. Claim 1 now recites:

1. A system for controlling user interface features of a web application, the system comprising:
 - a collection of user interface control elements, each control element comprising:
 - a namespace specifying a predefined control element;
 - common attributes for defining graphical features of the control element and for associating the control element with the internal state of the core control element;
 - other attributes for defining attributes that affect the intrinsic behavior of the control; and
 - a skin template reference attribute for referencing a skin template;

a collection of skin templates comprising extensible markup language based markup contained as children of a container element; and

a collection of predefined control element instructions for performing actions associated with the control elements, each script associated with a control element though the namespace.

Applicants submit that Dreamweaver does not teach associating predefined control element instructions with a control element though a namespace specifying a predefined control element. Applicants respectfully submit that the broadest reasonable interpretation of the current claims comprise subject matter that is both novel and not obvious in view of the cited references.

The Examiner has maintained the previously presented grounds for rejecting the claims. In view of the above clarification and amendment, Applicants respectfully request reconsideration of the relevance of the cited references, and the arguments previously presented, which for the sake of completeness of the present response, have been included herein in response to the maintained rejections.

Claim Rejections – 35 USC§ 102

The Examiner has alleged that claims 1 – 17, 20 – 21 and 25 –26 are anticipated by Macromedia, Extending Dreamweaver (<http://www.adobe.com/support/dreamweaver/extend.html>) under 35 U.S.C. 102(b). Applicants respectfully request reconsideration.

Applicants submit that the document cited by the Examiner does not relate to the subject matter of the present claimed invention. Macromedia provides information about how to program Dreamweaver extensions and explains the Dreamweaver API. The cited document does not teach what these extensions can be used to accomplish. Rather, it describes various functionality that Dreamweaver supports and describes how to use this functionality to enable

one skilled in the art to add an extension in Dreamweaver. A person skilled in the art could use the teachings of the present application to create a new Dreamweaver extension that provides functionality to Dreamweaver not envisioned by the cited document.

Furthermore, as outlined in the cited document, in particular on pages 31, 37, 5, 77 and 87, the extensions are created using HTML files and HTML forms. The invention as described and claimed, overcomes some of the problems associated with HTML outlined in the background section of the description.

As mentioned above, the cited document describes the various features of Dreamweaver that allow a person skilled in the art to add extensions that add functionality to Dreamweaver. Applicants submit that the subject matter of current claims 1 – 17, 20 – 21 and 25 – 26 is not anticipated by the cited document.

The present claimed invention is directed towards systems and methods of controlling user interface features of a web application. The system and methods do not require Dreamweaver or the Dreamweaver API. The present application describes and claims a way of specifying user interfaces in such a manner so as to allow for the separation of the display characteristics of the control elements from the function of the control elements. The graphical appearance of the user interface is described in an extensible markup language. In a particular embodiment, scalable vector graphics is the markup language used. The information disclosed by the Macromedia document does not disclose or suggest such systems or methods.

Claim 1

The Examiner has rejected independent claim 1, alleging that Macromedia teaches a system for controlling user interface features of a web application. As outlined above the Macromedia document discloses information on adding extensions for Dreamweaver, not for controlling user interface features of a web application. Dreamweaver's support for extensions

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cannot be considered the same as controlling user interface features of a web application.

Dreamweaver extensions may be used to add functionality to the Dreamweaver program. As outlined in the specification as originally filed, the systems and methods taught in the current patent disclosure can be used within web browsers, which differs from Dreamweaver.

The Examiner has alleged that the Macromedia document discloses a collection of user interface control elements. The Dreamweaver extensions listed in the Macromedia document are objects, commands, menu commands, panels, data translators, property inspectors, reports, and behaviours that a user can create using HTML and the Dreamweaver API. None of these listed extensions describe the control elements as described in the current application and claimed in the current independent claim 1. In addition to failing to disclose the control elements, Macromedia particularly fail to describe separating the functionality of an object, command, etc., from its display. This is evident, in particular, with floating panel extensions which are described as HTML files that use forms to gather user input. The floating panels receive their input from an HTML form. Although HTML allows for the specification of the location and size of various elements of a form, this is not the same as the control of the graphical appearance of elements as is understood in light of the description. The control of the graphical appearance that is achieved with the present patent disclosure allows for the specification of not just the size or position of the element but all of the graphical characteristics. There is no way of specifying the graphical appearance of the extensions of the Macromedia document.

The Examiner has further alleged that the use of CSS style functions taught by the Macromedia document discloses a skin reference attribute for referencing a skin template. As described in the current patent disclosure, skin templates are used to define the visual and graphical appearance of control elements. This allows for the absolute specification of the

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appearance of the user interface control using an extensible markup language. The CSS style functions disclosed in the Macromedia document do not allow for specifying the visual and graphical appearance of control elements. CSS style function are used to apply CSS styles to an HTML document or elements in the HTML document. They cannot define the visual and graphical appearance of control elements, as the control elements are not defined in HTML.

As outlined above the Macromedia document does not disclose the system for controlling user interface features of a web application as claimed in independent claim 1. As such Applicants submit that the claimed subject matter of claim 1 is not anticipated by the Macromedia document and complies with 35 U.S.C. 102(b).

Claim 2

The Examiner has rejected dependent claim 2, alleging that Macromedia teaches the system for controlling user interface features of a web application. As outlined above, the Macromedia document does not disclose the subject matter of claim 1, which claim 2 depends on. Furthermore, the document fails to disclose the initialization function as claimed. The document describes methods that can be used for a tree control within Dreamweaver. It describes functions for manipulating the tree control content. This fails to disclose the initialization function as claimed and understood in light of the description as filed. The initialization function searches a document object model for control elements, and calls a function based on the name of the control element found and a predetermined naming convention. The initialization function may be used to initialize the control elements. Although the initialization function makes use of the tree structure of a document object model, it does so in order to search for control elements. This cannot be considered as simply functions that manipulate a tree control's content as described in the Macromedia document.

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As such, Applicants submit that the subject matter of claim 2 is not anticipated by the Macromedia document and complies with 35 U.S.C. 102(b).

Claims 3 to 13

The Examiner has rejected dependent claims 3 - 13, alleging that Macromedia teaches the system for controlling user interface features of a web application. As outlined above, the Macromedia document does not disclose the subject matter of claim 1. Claims 3 - 13, being either directly or indirectly dependent on claim 1, contain all of the limitations of claim 1, and serve to further limit the scope of the claim. As such, Applicants submit that the subject matter of claims 3 - 13 is not anticipated by the Macromedia document, and the claims comply with 35 U.S.C. 102(b).

Claim 14

The Examiner has rejected independent claim 14, alleging that Macromedia teaches the system for controlling user interface features of a web application. As outlined above for claim 1, the Macromedia document does not disclose the control elements as described. The document further fails to disclose associating instructions with control elements where the instructions are for performing actions associated with the control elements. As outlined above for claim 2, the Macromedia document fails to describe the initialization function as claimed and understood in light of the description as originally filed. As such, Applicants submit that the subject matter of claim 14 is not anticipated by the Macromedia document, and complies with 35 U.S.C. 102(b).

Claim 15

The Examiner has rejected dependent claim 15, alleging that Macromedia teaches the system for controlling user interface features of a web application. As outlined above, the Macromedia document does not disclose the subject matter of claim 14. Furthermore, as

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previously described, the Macromedia document fails to disclose a collection of skin templates as claimed, and understood in light of the description as originally filed. Claim 15, being dependent on claim 14, contains all of the limitations of claim 14 and serves to further limit the scope of the claim. As such, Applicants submit that the subject matter of claim 13 is not anticipated by the Macromedia document, and complies with 35 U.S.C. 102(b).

Claim 16

The Examiner has rejected independent claim 16, alleging that Macromedia teaches the method for controlling user interface features of a web application. As previously outlined the Macromedia document discloses functions for manipulating the content of a tree control. It does not disclose searching for a designated user interface control element in a document object model. The Macromedia document further fails to disclose calling a script associated with the designated control element. As previously outlined the Macromedia document does not disclose control elements as understood in light of the description as originally filed. The methods disclosed by the document for manipulating the tree control content are simply common methods for working with tree structures. These methods do not disclose the claimed subject matter of the independent claim 16 as understood in light of the description as originally filed. As such, Applicants submit that the subject matter of claim 16 is not anticipated by the Macromedia document, and complies with 35 U.S.C. 102(b).

Claims 17, 20 and 21

The Examiner has rejected dependent claims 17, 20 and 21, alleging that Macromedia teaches the method for controlling user interface features of a web application. As outlined above, the Macromedia document does not disclose the subject matter of claim 16. Claims 17, 20 and 21, being either directly or indirectly dependent on claim 16, contain all of the limitations of claim 16 and serve to further limit the scope of the claim. As such, Applicants

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submit that the subject matter of claims 17, 20 and 21 is not anticipated by the Macromedia document, and the claims comply with 35 U.S.C. 102(b).

Claim 25

The Examiner has rejected independent claim 25, alleging that Macromedia teaches the method for controlling user interface features of a web application. The Macromedia document discloses functions for adding behaviours to an object. As previously outlined the document does not disclose user interface control elements. Although the document discloses a function for adding a behaviour to an object, it does not disclose a method for controlling user interface features of a web application. The document discloses a function for getting an action at a specified position within the specified event. The function returns a string representing the function call. This cannot be considered the same as receiving an event which is equal to an event attribute setting in the behaviour element, and calling an associated script. As such, Applicants submit that the subject matter of claim 25 is not anticipated by the Macromedia document, and complies with 35 U.S.C. 102(b).

Claim 26

The Examiner has rejected independent claim 26, alleging that Macromedia teaches the method for controlling user interface features of a web application. As previously outlined the document fails to disclose user interface controls as understood in light of the disclosure as originally filed. As such, the document cannot describe a method having a step for categorizing the user interface controls into fundamental core controls. The Macromedia document also fails to disclose skin templates to allow for the absolute customization of appearance of the core control. As such, Applicants submit that the subject matter of claim 26 is not anticipated by the Macromedia document, and complies with 35 U.S.C. 102(b).

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Claim Rejections – 35 USC§ 103

The Examiner has rejected claims 18 – 19 and 22 – 24 under 35 U.S.C. 103(a), alleging that the claims are unpatentable over Macromedia in view of Cain (US 6,014,138).

Applicants respectfully request reconsideration.

Cain teaches a development system and methods related to creating programs for storing, retrieving, and presenting information on a data processing system, such as a Database Management System. Cain fails to disclose any information that one skilled in the art could apply to the Macromedia document to arrive at the claimed subject matter of the current application.

Claim 18

The Examiner has rejected claim 18, alleging that the subject matter would have been obvious to one skilled in the art having regard to Macromedia in view of Cain. Applicants submit that Cain does not disclose any information that one skilled in the art could use to overcome the deficiencies of the Macromedia document previously outlined for claim 16, which claim 18 depends. Furthermore, Cain does not teach dynamically generating a function name associated with the designated element as alleged by the Examiner. Cain teaches automatically assigning a generic name. This is not the same as dynamically generating a function name associated with the designated element. Cain further fails to disclose passing an object associated with the designated element as a parameter of the generated function. Instead Cain teaches passing a string to the function. The string is not associated with the designated object. Applicants submit that claim 18 contains patentable subject matter over the Macromedia document in view of Cain, and complies with 35 U.S.C. 103(a).

Claim 19

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The Examiner has rejected dependent claim 19, alleging that that the subject matter would have been obvious to one skilled in the art with regard to the Macromedia document in view of Cain. As outlined above for claim 18, which claim 19 depends, Cain fails to disclose any information that would lead one skilled in the art to the subject matter of the claim. As such, Applicants submit that claim 19, comprising the limitations of claim 18, contains patentable subject matter over the Macromedia document in view of Cain, and complies with 35 U.S.C. 103(a).

Claim 22

The Examiner has rejected dependent claim 22, alleging that that the subject matter would have been obvious to one skilled in the art with regard to the Macromedia document in view of Cain. As outlined above, Cain fails to disclose information that one skilled in the art could apply to the Macromedia document to arrive at the claimed subject matter. Cain particularly fails to disclose generating a function name comprising the name of the designated attribute and assigning an object associated with the designated attribute as the parameter of the function name. As such, Applicants submit that claim 22 contains patentable subject matter over the Macromedia document in view of Cain, and complies with 35 U.S.C. 103(a).

Claim 23

The Examiner has rejected dependent claim 23, alleging that that the subject matter would have been obvious to one skilled in the art with regard to the Macromedia document in view of Cain. As outlined above, Cain fails to disclose information that one skilled in the art could apply to the Macromedia document to arrive at the claimed subject matter. Cain particularly fails to disclose dynamically generating a function name associated with the designated attribute and passing an object associated with the designated attribute as a parameter of the generated function name. As such, Applicants submit that claim 23 contains

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patentable subject matter over the Macromedia document in view of Cain, and complies with 35 U.S.C. 103(a).

Claim 24

The Examiner has rejected dependent claim 24, alleging that that the subject matter would have been obvious to one skilled in the art with regard to the Macromedia document in view of Cain. As outlined above, Cain fails to disclose information that one skilled in the art could apply to the Macromedia document to arrive at the claimed subject matter. Cain particularly fails to disclose generating a function name comprising the name of the designated attribute and assigning an object associated with the designated attribute as the parameter of the function. As such, Applicants submit that claim 24 contains patentable subject matter over the Macromedia document in view of Cain, and complies with 35 U.S.C. 103(a).

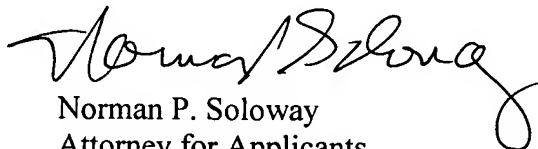
Closing

Having dealt with all the objections raised by the Examiner, the Application is believed to be in order for allowance. Early and favourable action is respectfully requested.

Form PTO-2038 authorizing credit card payment in the amount of \$1,860.00 to cover the cost of the Three Month Petition for Extension of Time and the Request for Continued Examination (RCE) accompanies this Amendment.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account 08-1391.

Respectfully submitted,



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